

REMARKS

Claims 1-12 are pending. Claims 1-4, and 6 have been amended. New claims 7-12 have been added. No new matter has been introduced. Reexamination and reconsideration of the application are respectfully requested.

In the September 11, 2003 Office Action, the Examiner allowed claims 2-6. Claims 1-4, and 6 have been slightly amended to improve their form. The Examiner rejected claim 1 under 35 U.S.C. §103(a) as being obvious over Fujimoto, U.S. Patent No. 5,473,348 (hereinafter Fujimoto reference), taken with Kamada, U.S. Patent No. 6,388,675 (hereinafter Kamada reference), in view of Matsumoto, U.S. Patent No. 5,929,839 (hereinafter Matsumoto reference), in further view of Tanaka et al., U.S. Patent No. 6,320,778 (hereinafter Tanaka reference). This rejection is respectfully traversed.

The present invention relates to a display control apparatus that contains a video memory, a video memory controller (first video memory controller), a color palette memory and a color palette replacer signal generator (second video memory controller).

Independent claim 1, as amended, recites:

A display control apparatus comprising:

 a video memory for storing color data, which are used to designate colors for displayed dots, palette data for use in conversion of the color data and address data representing addresses of the color data and the palette data;

 a first video memory controller for reading the palette data from the video memory in accordance with the address data, so that read palette data are written to a color palette memory;

a second video memory controller for reading the color data from the video memory in accordance with the address data, so that read color data are subjected to conversion on the color palette memory in accordance with the palette data; and

an output circuit for outputting either the color data read from the video memory or converted color data output from the color palette memory to a display, wherein if present address data designating present palette data match with previous address data designating previous palette data, the first video memory controller does not write the present palette data to the color palette memory, and wherein if present address data designating present palette data does not match with previous address data designating previous palette data, the first video memory controller writes the present palette data to replace the content of the color palette memory.

The Examiner rejected claim 1 under 35 U.S.C. §103(a) as being obvious over Fujimoto, taken with the Kamada, taken with Matsumoto, in view of Tanaka.

The Examiner stated in the Office Action that Tanaka et al. teaches "a memory device with a built-in-cache in which data can be stored for quick recall (col. 1, lines 63-67 and col. 2, lines 1-33). Tanaka et al. further teaches if present address data designating present palette data match with previous address data designating previous palette data, the first video memory controller does not write the present palette data to the color palette memory (col. 18, lines 9-10)."

The Tanaka reference states "**A cache replace cycle occurs when the input row address does not match the row address held in any tag memory, and there is no empty cache row. One cache row is selected for replacement.**" (col. 18, lines 9-12). The Tanaka reference further states "The cache row to be replaced can be

selected according to various algorithms." (col. 18, lines 17-19).

The Tanaka reference makes no mention of palette data or a palette address. The Tanaka reference requires for there to be no **no empty cache row** and **only one cache row is selected for replacement** during a cache replace cycle. The Tanaka reference requires that the cache row to be replaced be selected according to various algorithms. The cache replace cycle as taught by Tanaka has many additional requirements and is simply not the same as requiring "if present address data designating present palette data match with previous address data designating previous palette data, the first video memory controller does not write the present palette data to the color palette memory, and wherein if present address data designating present palette data does not match with previous address data designating previous palette data, the first video memory controller writes the present palette data to **replace the content of the color palette memory**".

Moreover, it is respectfully submitted that it would not have been obvious to one skilled in the art to combine the teachings of the Fujimoto reference and the Tanaka reference, as suggested by the Examiner. It is well settled that a reference must provide some motivation or reason for one skilled in the art (working without the benefit of applicant's specification) to make the necessary changes in the disclosed device. The mere fact that a reference may be modified in the direction of the claimed invention does not make the modification obvious unless the reference expressly or implicitly teaches or suggests the desirability of the modification. In re Kotzab, 55 U.S.P.Q.2d 1313, 1317-18 (Fed. Cir. 2000); In re Fitch, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992); In re Mills, 16 U.S.P.Q.2d 1430, 1432 (Fed. Cir. 1990).

The cited references, i.e., the Fujimoto and the Tanaka references, fail to meet the basic requirement for a finding of obviousness established by the courts in Kotzab, Fitch, and Mills. There is no suggestion in either reference of modifying the display control apparatus disclosed in the Fujimoto reference in the direction of the present claim, i.e., "if present address data designating present palette data match with previous address data designating previous palette data, the first video memory controller does not write the present palette data to the color palette memory, and wherein if present address data designating present palette data does not match with previous address data designating previous palette data, the first video memory controller writes the present palette data to replace the content of the color palette memory", nor is there any suggestion of the desirability of such modification.

Based on the Applicants' specification and claims, the Examiner is combining different references which are unrelated to each other, and none of which contains any teaching to be combined with each other.

Accordingly, Applicant respectfully submits that independent claim 1, as amended, distinguishes over the above-cited reference. Claims 2-6 have been allowed.

Applicant has added new independent claim 7 and dependent claims 8-12 to further define the invention. Claims 7-12 recite limitations that distinguish over the above-cited references. Specifically, independent claim 7 recites "a color palette replacer instruction and a bitmap data format indicator".

///

///

///

Applicant believes that the foregoing amendment and remarks place the application in condition for allowance, and a favorable action is respectfully requested.

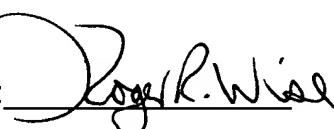
If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the examiner believe that such a telephone conference would advance prosecution of the application.

Respectfully submitted,

PILLSBURY WINTHROP LLP

Date: March 11, 2004

By:



Roger R. Wise
Registration No. 31,204
Attorney for Applicant(s)

725 South Figueroa Street, Suite 2800
Los Angeles, CA 90017-5406
Telephone: (213) 488-7100
Facsimile: (213) 629-1033